

**REMARKS**

Claims 61, 62, 64-113, 115, 116, and 119-146 are pending in this application, of which claims 61, 101-108, 115, and 139-146 are presented for examination, and claims 62, 64-100, 109-113, 116, 118, and 120-138 have been withdrawn from consideration.

In the Office Action mailed May 23, 2006<sup>1</sup>, claims 61, 101, 102, 105-108, 115, 139, 140, and 143-146 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,290,566 to Gabai et al. ("*Gabai et al.*") in view of U.S. Patent No. 6,389,055 to August et al. ("*August et al.*"); claims 103 and 141 were rejected under § 103(a) as unpatentable over *Gabai et al.* in view of *August et al.* and in further view of U.S. Patent No. 4,840,602 to Rose ("*Rose*"); and claims 104 and 142 were rejected under § 103(a) as unpatentable over *Gabai et al.* in view of *August et al.*, in further view of *Rose*, and in further view of U.S. Patent No. 5,314,336 to Diamond et al. ("*Diamond et al.*").

**§ 103(a) Rejection of Claims 61, 101, 102, 105-108, 115, 139, 140, and 143-146**

Applicants respectfully traverse the rejection of claims 61, 101, 102, 105-108, 115, 139, 140, and 143-146 under 35 U.S.C. § 103(a) as unpatentable over *Gabai et al.* in view of *August et al.* A *prima facie* case of obviousness has not been established.

To establish a *prima facie* case of obviousness under § 103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in

<sup>1</sup> The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether or not any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Moreover, both of these requirements must be found in the prior art, not in applicant's disclosure. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP § 2143 (8th ed., Rev. 4, October 2005).

Claims 61, 101, 102, and 105-108

Even if each and every element of independent claim 61 could be found in the cited references, which Applicants do not concede, the cited references fail to provide the suggestion or motivation required to establish a prima facie case of obviousness.

*Gabai et al.* discloses a “[a] computer 100 [that] is equipped with a computer radio interface 110 operative to transmit signals via wireless transmission based on commands received from the computer 100 and ... to receive signals transmitted elsewhere via wireless transmission and to deliver the signals to the computer 100” (col. 13, lines 25-31). “[A] toy 120 ... comprises a toy control device 130, operative to receive a wireless signal transmitted by the computer 100 and to cause each toy 120 to perform an action based on the received signal” (col. 13, lines 52-56). Each of the messages sent between the computer radio interface (110) and the toy control device (130) is 10 bytes long (col. 20, line 1 to col. 31, line 23). In a preferred embodiment, these messages comprise MIDI commands (col. 31, line 44 to col. 32, line 29).

The Examiner acknowledges that *Gabai et al.* fails to teach, inter alia, an encoder comprising “a modulator operable to modulate the data signal before being spread by said spreader or to modulate the spread signal, onto at least one carrier signal within an

audible frequency band of 20 Hz and 20 kHz,” as recited in independent claim 61. The Examiner relies on *August et al.* to attempt to make up for these deficiencies.

*August et al.* discloses, “[a] program signal 12 (which may be a perceptible signal ...) and a data stream 16 are combined by a spread spectrum encoder/modulator 18 to produce a signal 19 that incorporates both the original program and data stream 16.” Signal 19 is broadcast, received at a monitor 10, and played back into a room by a loudspeaker 106 as audio signal 20. “The encoding of data stream 16 is such that the effect on audio signal 20 is imperceptible, or at least unobjectionable. A capture device 110 ... continuously receives the audio signal, ... and a spread spectrum decoder 26 captures the data stream 28 from audio signal 20.” (Col. 2, line 66 to col. 3, line 20.) A data rate of about 100 bits of per second is achieved (col. 4, lines 7-12).

The Examiner alleges, “[a]pplying August’s transmission system to operate in place of the wireless transmission would thus create a toy system with a toy responsive to the acoustic signal and a toy with a responder responsive to the data signal” (Office Action, pg. 5, paragraph 1). According to the Examiner, “[o]ne would have been motivated to use the communication system disclosed by August in place of the wireless transmission system disclosed by Gabai in order to efficiently transmit data over an audio channel in a home premises (col. 1 line 67 of August) without the data being perceptible to the user” (Office Action, pg. 5, paragraph 2).

However, there is not any suggestion or motivation for one of ordinary skill to combine the teachings of *Gabai et al.* with the teachings of *August et al.* to derive the toy system recited in claim 61, at least because *Gabai et al.* teaches away from such a

combination. *Tec Air, Inc. v. Denso Mfg. Michigan, Inc.*, 192 F.3d 1353, 1360, 52 USPQ2d 1295, 1298 (Fed. Cir. 1999). *Gabai et al.* at, for example, col. 31, line 44 to col. 32, line 29, teaches away from using the acoustic transmission link incorporating the loudspeaker (106) and capture device (110) of *August et al.* in place of the wireless radio link of *Gabai et al.* because *Gabai et al.* teaches that the wireless radio link preferably transmits MIDI commands. A MIDI transmission link typically operates at 31,250 bps (See, e.g., "MIDI Media Adaptation Layer for IEEE-1394." MMA/AMEI RP-027. [http://www.midi.org/about-midi/rp27v10spec\(1394\).pdf](http://www.midi.org/about-midi/rp27v10spec(1394).pdf) (November 30, 2000).) *August et al.*, on the other hand, teaches that its acoustic transmission link achieves a data throughput of only about 100 bps, which is apparently less than 1/100th of the throughput required to support the preferred embodiment of *Gabai et al.* Thus, since *Gabai et al.* teaches the preferability of an embodiment requiring over 100 times more throughput than is supported by *August et al.*, *Gabai et al.* teaches away from the combination that is suggested by the Examiner.

Furthermore, the references do not contain the motivation, alleged by the Examiner, to use the acoustic transmission link of *August et al.* in place of the wireless radio link of *Gabai et al.* because the data transmission would thereby be imperceptible to the user. The wireless radio transmission of *Gabai et al.* is already imperceptible to the user. *August et al.*, on the other hand, teaches that the acoustic transmission may be imperceptible (col. 3, lines 12-14). One of ordinary skill would not have been motivated to replace the imperceptible wireless radio link of *Gabai et al.* with the slower, and at best also imperceptible, acoustic transmission link of *August et al.*

In addition, *Gabai et al.* is concerned with toys (Abstract). *August et al.* is concerned with the different field and the different problem of allowing people to buy products or obtain more information about products appearing in TV or radio commercials (col. 1, lines 7-29; col. 1, line 63 to col. 2, line 4). Thus, one of ordinary skill would not have been motivated to combine the teachings in these references.

There is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine *Gabai et al.* and *August et al.* to derive the toy system recited in independent claim 61. Rather, the Examiner is relying on impermissible hindsight, which is based on Applicants' disclosure, to attempt to reconstruct the claimed invention from these disparate teachings. Thus, claim 61 and claims 101, 102, and 105-108 dependent therefrom are allowable over *Gabai et al.* and *August et al.*

Claims 115, 139, 140, and 143-146

Even if each and every element of independent claim 115 could be found in the cited references, which Applicants do not concede, the cited references fail to provide the suggestion or motivation required to establish a prima facie case of obviousness.

There is not any suggestion or motivation for one of ordinary skill to combine *Gabai et al.* and *August et al.* to derive the toy recited in claim 115. As explained above in relation to claim 61, *Gabai et al.* teaches the preferability of an embodiment that apparently requires over 100 times more throughput than is supported by *August et al.* Furthermore, the wireless radio transmission of *Gabai et al.* is already imperceptible to the user. One of ordinary skill would not have been motivated to replace the already-

imperceptible wireless radio link of *Gabai et al.* with the slower acoustic transmission link of *August et al.* Finally, *Gabai et al.* is concerned with a different field and different problem from *August et al.*

Thus, since there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill, to combine *Gabai et al.* and *August et al.* to derive the toy recited in independent claim 115, claim 115 and claims 139, 140, and 143-146 dependent therefrom are allowable over *Gabai et al.* and *August et al.*

#### **§103(a) Rejection of Claims 103 and 141**

Applicants respectfully traverse the rejection of claims 103 and 141 under 35 U.S.C. § 103(a) as unpatentable over *Gabai et al.* in view of *August et al.* and in further view of *Rose*. There is no suggestion or motivation for one of ordinary skill to combine the teachings of *Gabai et al.*, *August et al.*, and *Rose* to derive the toy system recited in independent claim 61, from which claim 103 depends, or the toy recited in independent claim 115, from which claim 141 depends.

#### **Claim 103**

The shortcomings of *Gabai et al.* and *August et al.* in relation to independent claim 61 have been discussed above. *Rose* does not make up for the deficiencies of *Gabai et al.* and *August et al.* because *Rose* also fails to provide the suggestion or motivation required to establish a prima facie case of obviousness.

Thus, since *Gabai et al.*, *August et al.*, and *Rose* fail to provide any suggestion or motivation to combine these references to derive the toy system recited in claim 61,

claim 103 is allowable over *Gabai et al.*, *August et al.*, and *Rose* at least due to its dependence from claim 61.

#### Claim 141

The shortcomings of *Gabai et al.* and *August et al.* in relation to independent claim 115 have been discussed above. *Rose* does not make up for the deficiencies of these references because *Rose* also fails to provide the suggestion or motivation required to establish a prima facie case of obviousness.

Thus, since *Gabai et al.*, *August et al.*, and *Rose* fail to provide any suggestion or motivation to combine these references to derive the toy recited in claim 115, claim 141 is allowable over *Gabai et al.*, *August et al.*, and *Rose* at least due to its dependence from claim 115.

#### §103(a) Rejection of Claims 104 and 142

Applicants respectfully traverse the rejection of claims 104 and 142 under 35 U.S.C. § 103(a) as unpatentable over *Gabai et al.* in view of *August et al.*, in further view of *Rose*, and in further view of *Diamond et al.* *Diamond et al.* also fails to provide the suggestion or motivation, missing from *Gabai et al.*, *August et al.*, and *Rose*, for one of ordinary skill to combine the teachings of *Gabai et al.*, *August et al.*, *Rose*, and *Diamond et al.* to derive the toy system recited in independent claim 61, from which claim 104 depends, or the toy recited in independent claim 115, from which claim 142 depends.

Claim 104

The shortcomings of *Gabai et al.*, *August et al.*, and *Rose* in relation to claim 61 have been discussed above. *Diamond et al.* does not make up for the deficiencies of *Gabai et al.*, *August et al.*, and *Rose* because *Diamond et al.* also fails to provide the suggestion or motivation required to establish a prima facie case of obviousness.

Thus, since *Gabai et al.*, *August et al.*, *Rose*, and *Diamond et al.* fail to provide any suggestion or motivation to combine these references to derive the toy system recited in claim 61, claim 104 is allowable over *Gabai et al.*, *August et al.*, *Rose*, and *Diamond et al.* at least due to its dependence from claim 61.

Claim 142

The shortcomings of *Gabai et al.*, *August et al.*, and *Rose* in relation to independent claim 115 have been discussed above. *Diamond et al.* does not make up for the deficiencies of these references because *Diamond et al.* also fails to provide the suggestion or motivation required to establish a prima facie case of obviousness.

Thus, since *Gabai et al.*, *August et al.*, *Rose*, and *Diamond et al.* fail to provide any suggestion or motivation to combine these references to derive the toy recited in claim 115, claim 142 is allowable over *Gabai et al.*, *August et al.*, *Rose*, and *Diamond et al.* at least due to its dependence from claim 115.

**CONCLUSION**

In view of the foregoing remarks, Applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

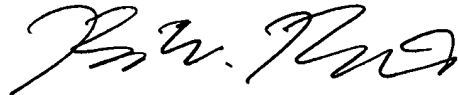


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Respectfully submitted,

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